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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,434	09/10/2001	Peter Saucrbrei	49658-0512	1649

7590 12/12/2006

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EXAMINER

BRIER, JEFFERY A

ART UNIT	PAPER NUMBER
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2628

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	Application No. 09/955,434	Applicant(s) SAUERBREI, PETER	
	Examiner Jeffery A. Brier	Art Unit 2628	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 November 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: see page 2. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: _____.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see page 2.
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
 13. ☐ Other: _____.

Jeffery A Brier
Primary Examiner
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Response to Amendment

- 1) The amendment to claim 63 filed on 11/27/2006 raises new issues, however, the amendment to claim 63 does appear to overcome the 35 USC 112 first and 101 rejections of claim 63, however, the definition given by the specification for the term "displaying" will need to be determined to ensure that it is not unduly broad.
- 2) The amendments to the preamble of claims 32, 34-37, and 39-54 appear to overcome the signal portion of the 35 USC 101 rejection of these claims set forth at pages 3-5 of the Final Rejection.

Response to Arguments

- 3) Applicants arguments filed 11/27/2006 concerning claims 1, 3-6, 8-32, 34-37, 39-56, and 57 regarding useful, tangible, and concrete results have been fully considered, however, they are deemed not to be persuasive because "storing the established locations for the objects" does not manifest a useful and tangible result since "the established locations for the objects" are abstract entities unlike the anti-aliased pixel illumination intensity data to be displayed on a display means of *In re Alappat*, 31 USPQ2d 1545, 1555, 1557 (Fed. Cir. 1994) and unlike the dollar amounts of *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 47 USPQ2d 1596, 1601 (Fed. Cir. 1998) and unlike the condition of a patient's heart of *Arrhythmia Research Technology Inc. v. Corazonix Corp.*, 22 USPQ2d 1033 (Fed. Cir. 1992). *Alappat* discussed claim 15 at page 1555 and discussed their rationale at page 1557. *State Street* discussed the dollar amounts rationale at page 1601. Additionally at page 1599

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State Street construed the means of the claims at elements d, e, f, and g to include storing of calculated values and this storing was not used in the analysis of the claim in determining the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"--a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.

Alappat's claim 15 discussion:

When independent claim 15 is construed in accordance with Section 112 Para. 6, claim 15 reads as follows, the subject matter in brackets representing the structure which Alappat discloses in his specification as corresponding to the respective means language recited in the claims:

A rasterizer [a "machine"] for converting vector list data representing sample magnitudes of an input waveform into anti- aliased pixel illumination intensity data to be displayed on a display means comprising:

- (a) [an arithmetic logic circuit configured to perform an absolute value function, or an equivalent thereof] for determining the vertical distance between the endpoints of each of the vectors in the data list;
- (b) [an arithmetic logic circuit configured to perform an absolute value function, or an equivalent thereof] for determining the elevation of a row of pixels that is spanned by the vector;
- (c) [a pair of barrel shifters , or equivalents thereof] for normalizing the vertical distance and elevation; and
- (d) [a read only memory (ROM) containing illumination intensity data, or an equivalent thereof] for outputting illumination intensity data as a predetermined function of the normalized vertical distance and elevation.

Alappat's rationale discussion at page 1557:

- (b)
Given the foregoing, the proper inquiry in dealing with the so called mathematical subject matter exception to Section 101 alleged herein is to see whether the claimed subject matter as a whole is a disembodied mathematical concept,

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whether categorized as a mathematical formula, mathematical equation, mathematical algorithm, or the like, which in essence represents nothing more than a "law of nature," "natural phenomenon," or "abstract idea." If so, Diehr precludes the patenting of that subject matter. That is not the case here. Although many, or arguably even all, ²² of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements which combine to form a machine for converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means. ²³ This is not a disembodied mathematical concept which may be characterized as an "abstract idea," but rather a specific machine to produce a useful, concrete, and tangible result.

State Street's rationale discussion at page 1601:

Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"--a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.

Thus, in this application amending the claims to store "the established locations for the objects" does not produce a useful, concrete, and tangible result.

4) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:00 to 3:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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